

Claims

- [c1] 1. A method for treating a surface of a wafer, comprising:
providing the wafer, wherein a plurality of bonding pads
and a plurality of bumps are disposed on the surface of
the wafer, each bump being attached to one bonding
pad through an under bump metallurgy (UBM) layer;
forming a photo-sensitive material layer over the surface
of the wafer, covering the bumps and the UBM layer;
patterning the photo-sensitive material layer by using
the bumps as masks to expose the surface of the wafer
between the bumps;
performing at least a wet etching process to clean the
exposed surface of the wafer; and
removing the remained photo-sensitive material layer.
- [c2] 2. The method of claim 1, wherein a material for forming
the photo-sensitive material layer is a positive photore-
sist material.
- [c3] 3. The method of claim 1, wherein the wet etching pro-
cess includes using sulfuric acid.
- [c4] 4. The method of claim 1, wherein the wet etching pro-
cess includes using hydrofluoric acid.

- [c5] 5. The method of claim 1, wherein a material of the UBM layer is selected from the following group consisting of titanium, tungsten, chromium, nickel, copper and alloys thereof.
- [c6] 6. The method of claim 1, wherein the step of removing the photo-sensitive material layer includes using a solvent.
- [c7] 7. The method of claim 1, wherein following the step of patterning the photo-sensitive material layer by using the bumps as masks, the UBM layers under the bumps are covered by the remained photo-sensitive material layer, while the surface of the wafer between the bumps is exposed.
- [c8] 8. The method of claim 7, wherein the step of performing the wet etching process removes residuals on the surface of the wafer.
- [c9] 9. The method of claim 1, wherein the wafer further includes a passivation layer and the bonding pads are exposed by the passivation layer on the surface of the wafer, and following the step of patterning the photo-sensitive material layer by using the bumps as masks, the UBM layers under the bumps are covered by the remained photo-sensitive material layer, while the passi-

vation layer between the bumps is exposed.

- [c10] 10. The method of claim 9, wherein the step of performing the wet etching process removes residuals on the passivation layer between the bumps.